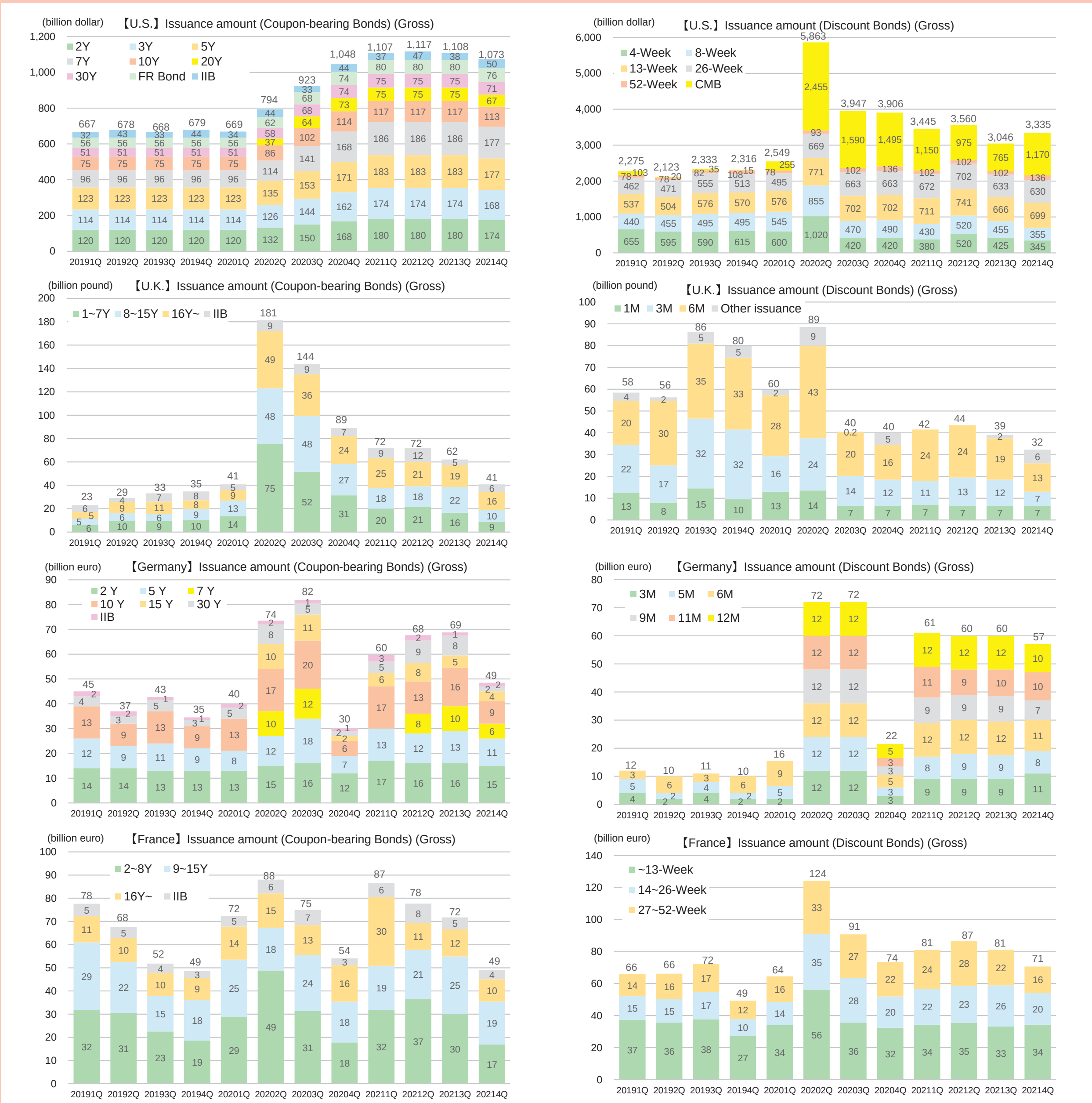
2 Debt Management Status in Foreign Countries

(1) Government Debt Issuance Trends

As the Novel Coronavirus (COVID-19) expansion has exerted huge impacts on the world economy since 2020, foreign countries have come up with economic assistance, etc. Subsequently, they have been forced to raise more funds by changing government bond issuance plans and increasing government bond issuances substantially from the previous year. Since 2021, however, government bond issuances have been falling back to levels before the COVID-19 expansion thanks to economic policy normalization, etc. (Figs. 2-44 and 2-45).

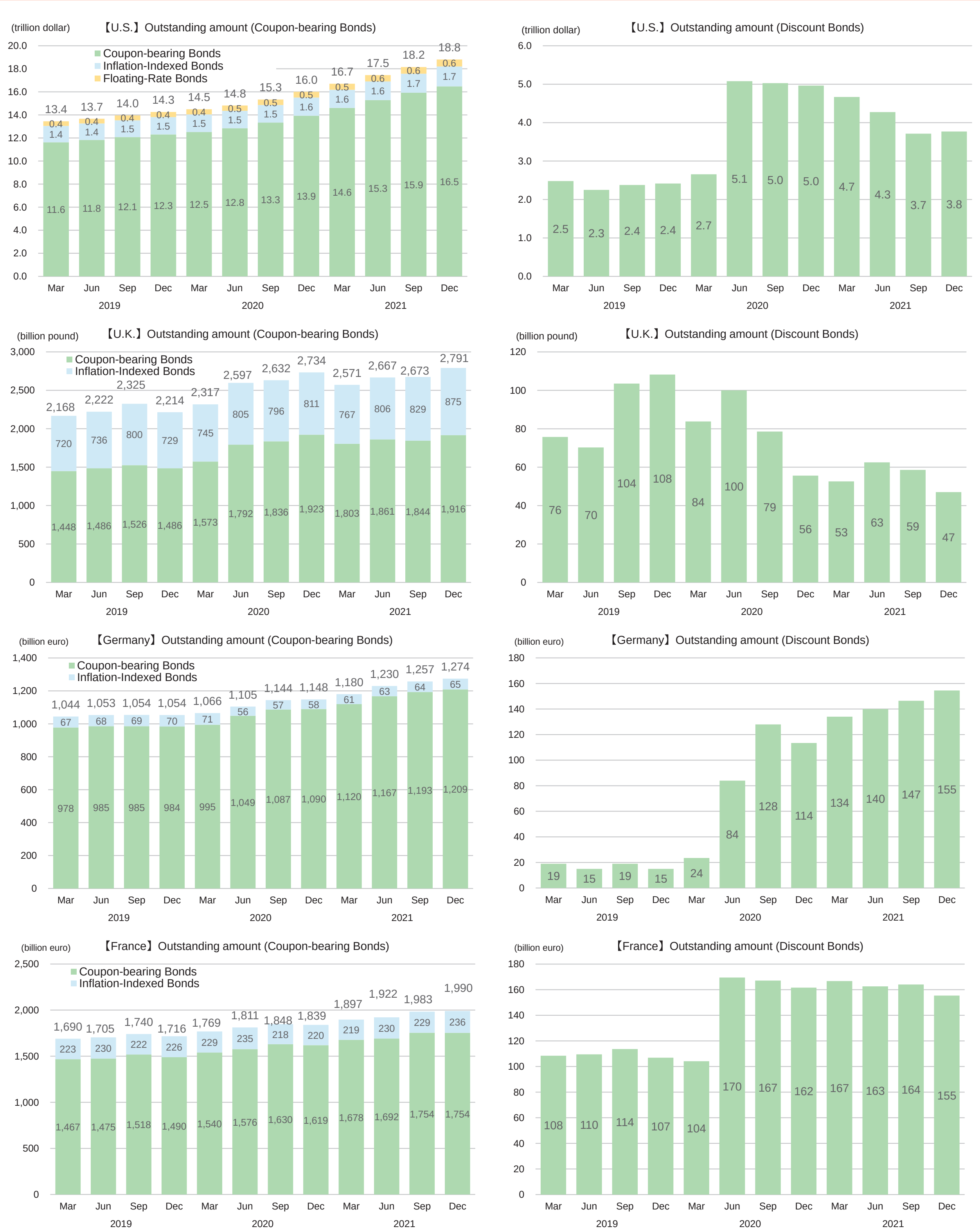
Fig. 2-44 Issuance Amount of Coupon-bearing Bonds and Discount Bonds



Note 1: As of December 2021. 1Q stands for the January-March quarter, 2Q for the April-June quarter, 3Q for the July-September quarter and 4Q for the October-December quarter.
Note 2: Data for U.K. are calculated on a revenue basis while data for the other countries are calculated on a nominal value basis.
Note 3: Green bonds and syndicated auctions are included for U.K., Germany and France.
Note 4: "Other issuance" of issuance amount of discount bonds for U.K. refers to discount bonds issued bilaterally between DMO and eligible investors at the request of those investors.
Note 5: IIB is Inflation-Indexed Bonds. FR Bond is Floating-Rate Bonds.
(Source) Calculated by Ministry of Finance based on the data of relevant countries' debt management authorities on an auction date basis

Coupon-bearing bond issuances in foreign countries as of the end of 2021 indicate that 5-year or shorter issues accounted for some 50% of the total issuances in the U.S. and Germany while longer issues command around 80% of the total in the U.K. and France. The maturity mix thus varies from country to country.

Fig. 2-45 Outstanding Amount of Coupon-bearing Bonds and Discount Bonds



Note 1: As of December 2021
Note 2: Coupon-bearing Bonds for these graphs are 1-year or longer bonds, excluding Inflation-Indexed and Floating-Rate Bonds while including Green Bonds.
(Source) Calculated by Ministry of Finance based on the data of relevant countries' debt management authorities and central banks

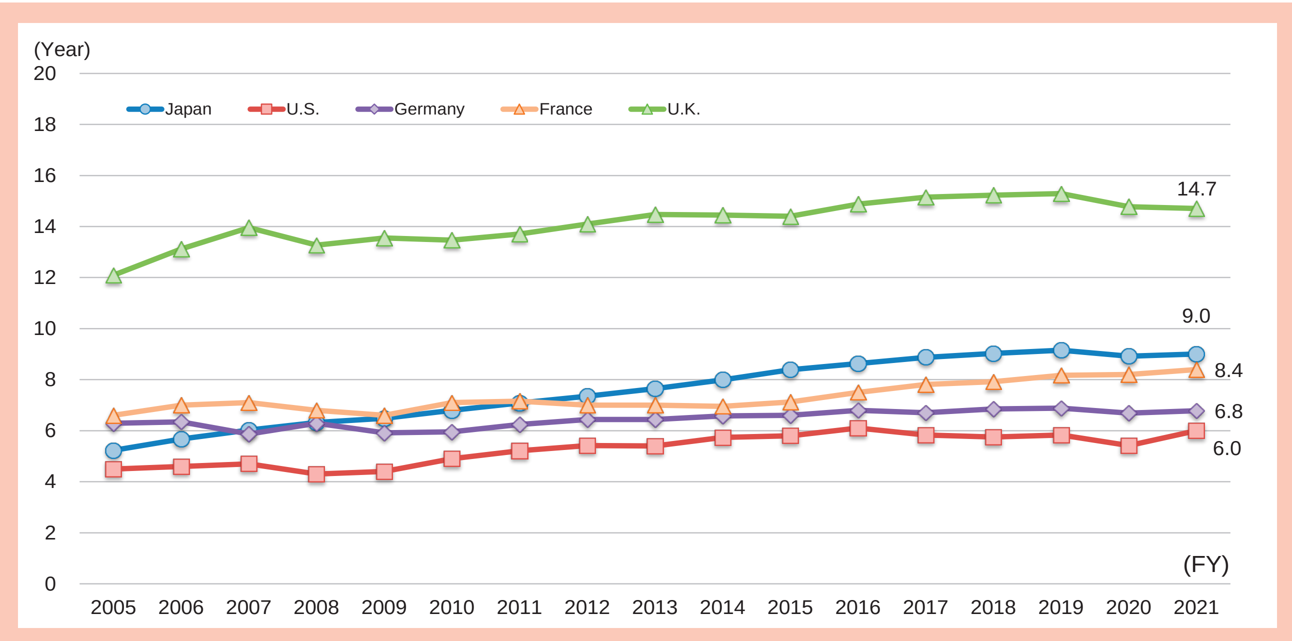
In Japan, the MOF flexibly adjusts Inflation-Indexed Bond issuance amounts according to the market environment and investment needs, based on dialogue with market participants. In foreign countries, Inflation-Indexed Bonds are issued as necessary. Particularly in the U.K. and France, Inflation-Indexed Bonds account for some 10% of the total issuance amounts, representing a relatively large share.

(2) Average Maturity

The "stock-based average maturity" is viewed as an important benchmark for assessing refunding risks. The stock-based average maturity is an indicator of overall outstanding government bonds, computed by weighted-averaging remaining maturities for outstanding government bonds.

Comparison between stock-based average maturities for government bonds in selected countries indicates that the average stands at as high as about 15 years in the U.K. with super long-term issues accounting for a large share of all government bonds, the averages range from five to eight years in the U.S., Germany and France. In Japan, the average bottomed out at 4.9 years at the end of FY2003 and continued to lengthen after that, reaching 9.2 years at the end of FY2019 (Fig. 2-46). Although the Japanese average fell back to 8.9 years at the end of FY2020 as Japan increased mainly short- to medium-term bond issues due to the COVID-19 expansion in FY2020, the average extended to 9.0 years again at the end of FY2021 due to a cut in short-term issues.

Fig. 2-46 Average Maturity

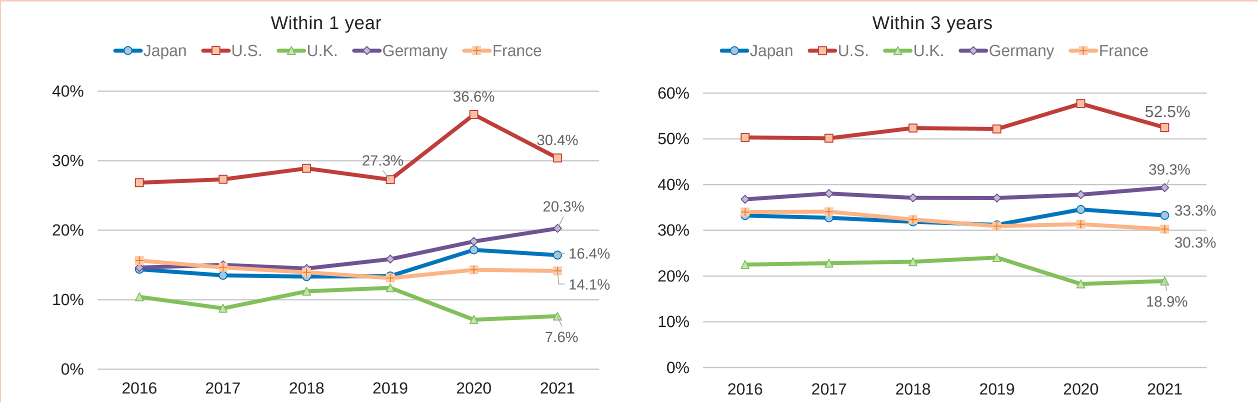


Note 1: Data for Japan represent the average weighted maturity of outstanding General Bonds including Treasury Bills and excluding Financing Bills.
Data for other countries include short-term (one-year and shorter) bills. However, data for U.K. excludes short-term bills for cash management purposes.
Note 2: Data are calculated on a stock basis. Non-marketable bonds are excluded.
Note 3: Data for each year are as of March next year for Japan alone and as of December for other countries.
(Sources) OECD, Relevant countries' debt management authorities

In addition, the following indicator is also useful for identifying more specific refunding needs. Fig. 2-47 indicates the proportions for outstanding bonds that are scheduled to be refunded or mature within one year and three years.

In Japan, the U.S., Germany and France, which had increased mainly short-term bond issuances to raise funds required for responding to the spread of COVID-19, the proportions at the end of December 2020 (at the end of March 2021 in Japan) increased year on year. In the U.S., particularly, the proportion for those maturing within one year rose by nearly 10 percentage points from 27.3% to 36.6%. At the end of December 2021 (at the end of March 2022 in Japan), however, the proportion declined year on year in Japan, the U.S. and France, while continuing to increase in Germany. In the U.K., which increased more-than-one-year coupon-bearing bond issuances in response to the spread of COVID-19, the proportion for those maturing within one year declined year on year at the end of December 2020 but rose back slightly at the end of December 2021.

Fig. 2-47 Proportion of Outstanding with Remaining Maturity Within 1 Year and 3 Years

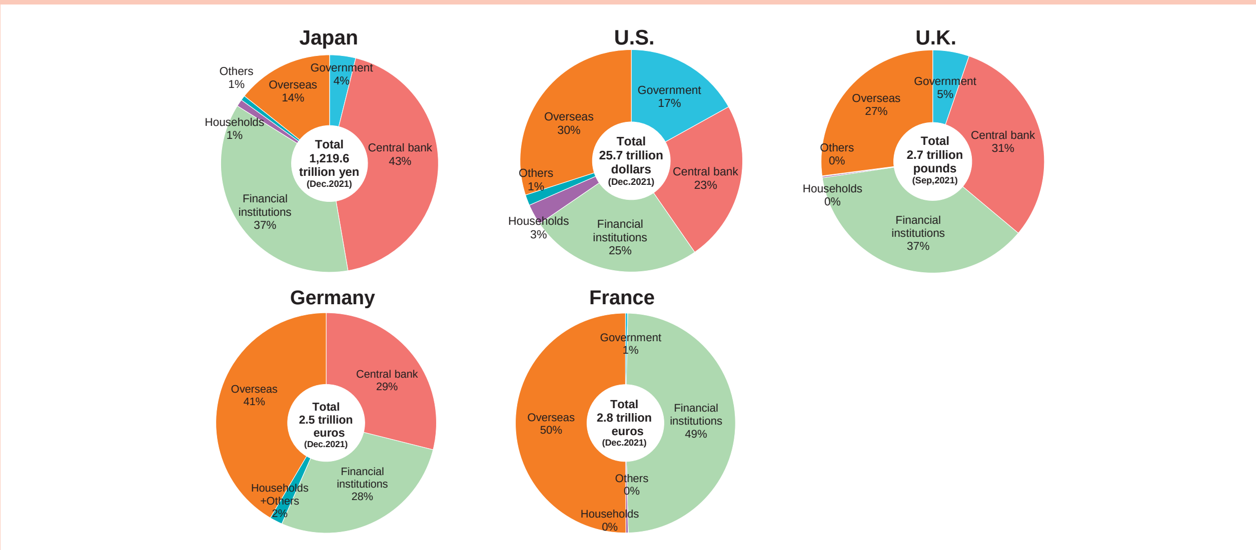


Note 1: Data for each year are as of March next year for Japan alone and as of December for other countries.
Note 2: Data are calculated on a stock basis. Non-marketable bonds are excluded.
(Sources) Ministry of Finance for Japan, calculated by Ministry of Finance based on Bloomberg for the others

(3) Breakdown by Government Bond Holders

According to a breakdown of government bonds by holder category published in each country, the foreign ownership of JGBs, though rising now, was limited to around 14% at the end of December 2021. On the other hand, the foreign ownership of government bonds is higher in foreign countries, standing at around 30% in the U.S. and around 40-50% in Germany and France (Fig. 2-48).

Fig. 2-48 Breakdown of Government Bonds by Holder Category



Note: Japanese government bonds include Fiscal Investment and Loan Program Bonds and Treasury Discount Bills (T-Bills). Data for the U.S exclude holdings by government-controlled public institutions, trust funds, etc. but include non-marketable government bonds held by the Federal Government Employee Retirement Funds, etc. In Germany and France, the total covers municipal bonds (the central bank's share in France is not made available).
(Sources) Japan: Bank of Japan, U.S.: Federal Reserve Board, U.K.: Office for National Statistics, UK Debt Management Office, Germany: Deutsche Bundesbank, France: Banque de France

Among other data, a working paper of the International Monetary Fund (IMF) in 2012 analyzed the estimated breakdowns of government bond holdings based on data from national debt management authorities, the Bank for International Settlements and other sources. Specifically, the study divided government bond holders into six sectors (domestic central banks, domestic banks, domestic nonbanks, foreign official sector, foreign banks and foreign nonbanks) and estimated their respective shares of government bond holdings (Fig. 2-49). The estimated breakdowns have been updated and published on the IMF website every quarter

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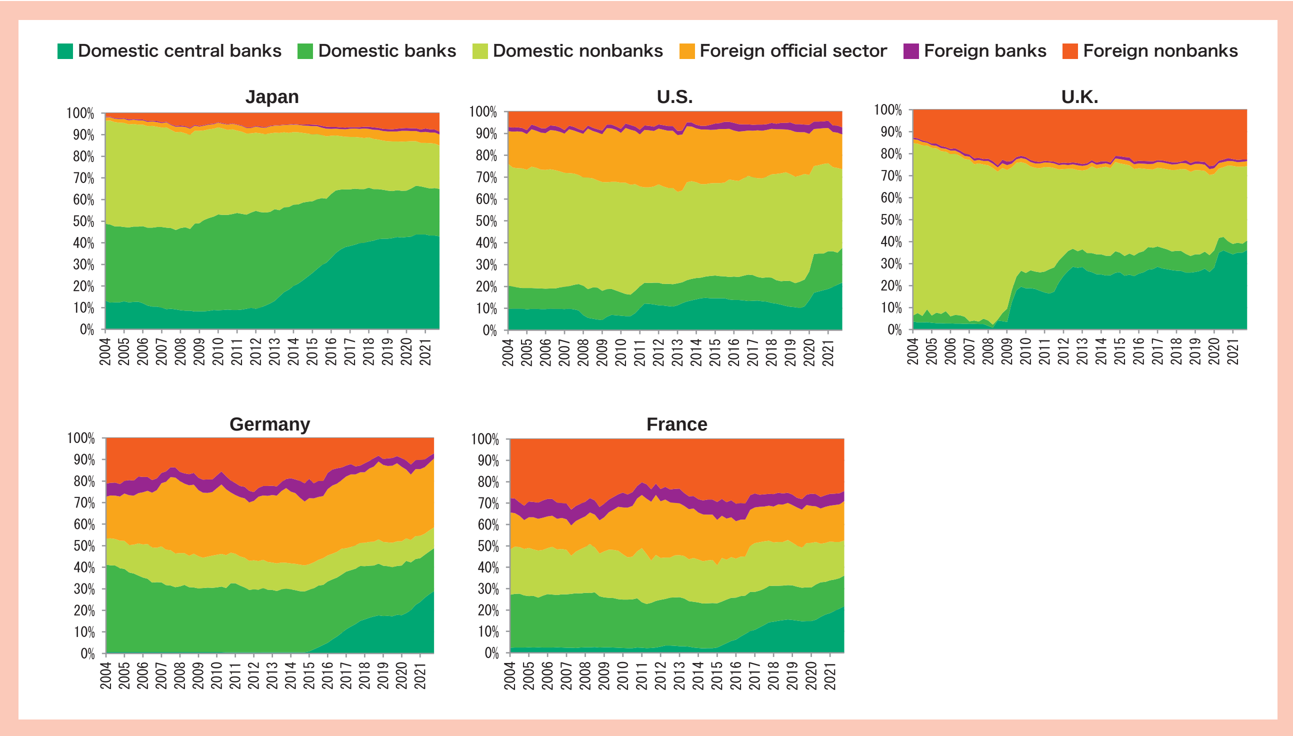
Fig. 2-49 Breakdown of Government Bonds by Holder Category



Note 1: As of December 2021
Note 2: Domestic banks are depository corporations residing in the country (IFS definition). Foreign banks are BIS reporting banks residing outside the country. Foreign official sector includes foreign central bank holdings as foreign exchange reserves, SMP holdings of foreign central banks, and foreign official loans. Foreign nonbanks and domestic nonbanks are imputed from external and total debt.
(Source) Serkan Arslanalp and Takahiro Tsuda, 2012, "Tracking Global Demand for Advanced Economy Sovereign Debt", IMF Working Paper, WP/12/284

3 Collaboration and Cooperation with Foreign Countries

National debt management authorities can exchange information through international conferences sponsored by international organizations.

These conferences include the OECD (Organization for Economic Cooperation and Development) Working Party on Public Debt Management, the OECD Global Forum on Public Debt Management, the IMF (International Monetary Fund) Public Debt Management Forum, the World Bank Government Borrowers Forum and the ADB (Asian Development Bank) Regional Public Debt Management Forum.

The Japanese debt management authorities have proactively attended these international conferences, giving presentations on Japan's debt management policies and sharing information and with foreign counterparts on debt management policies.